

## REMARKS

Claims 1-2, 4-7, 10 and 19-20 are pending in the present application.

Claims 3, 8-9, and 11-18 are canceled.

Claims 1, 2 and 4 are rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. 2002/0064728 to Weed et al. in view of U.S. 5,112,721 to Kuchta and further in view of U.S. 6,547,397 to Kaufman et al. and further in view of Applicants' admission. Applicants respectfully traverse this rejection.

Weed et al. are directed to photoimageable and photopolymerizable compositions which have sensitizers in the near IR region (Abstract, page 1, paragraph [0007], page 3, paragraph [0037], page 8, paragraph [0106] and paragraphs [0108] to [0118] and page 9, paragraphs [0119] to [0123]), not the visible region. In contrast, Kuchta disclose sensitizers which are sensitive for the visible region of the spectrum (Col. 1, lines 9-10), not the near IR region of the spectrum. Accordingly, the Office Action's allegation at page 4 that Kuchta's sensitizers fit the description of the sensitizers of Weed et al. is error. A person of ordinary skill in the art reading the disclosures of Weed et al. and Kuchta would have had no reason or motivation to substitute the cyclopentanones of Kuchta for the IR sensitive compounds of Weed et al.

Further, it is well settled that a proposed modification is inappropriate for an obviousness inquiry when the modification of an applied document renders that document inoperable for its intended purpose. See *In re Fritch*, 972 F.2d at 1265 n. 12, 23 U.S.P.Q.2d at 1783 n. 12. Substituting the visible light sensitive cyclopentanones of Kuchta for the IR sensitizers of Weed et al. would render the compositions of Weed et al. inoperable for its intended purpose. Moreover, the suggested combination of Weed et al. with Kuchta is improper under 35 U.S.C. §103 because it would require a substantial reconstruction and redesign of the elements shown in Weed et al. as well as a change in the basic principles under which Weed et al. was designed. See *In re Ratti*, 270 F.2d 810, 813, 123 U.S.P.Q. 349, 352 (C.C.P.A. 1959). Since Weed et al. are directed to a composition which is sensitive to light in the IR region of the spectrum, not the visible region as the compositions of Kuchta, to substitute the visible light sensitive sensitizers of Kuchta for the IR sensitive compounds of Weed et al. would require a substantial reconstruction and redesign of the elements of Weed et al., thus the combination of Weed et al. with Kuchta is improper under 35 U.S.C. §103.

Although Kaufman et al. disclose applying a 3D image on a contoured surface, Kaufman et al. alone or in combination with Weed et al. or Kuchta do not suggest the desirability of modifying Kaufman et al. to include a photoimageable composition on the contoured surface of Kaufman et al. See *In re Gordan*, 733, F.2d 900, 902, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984) ("The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification."). Kaufman et al. are directed to a method of using a 3D laser to accurately measure the distance between the laser source and a work piece and properly project the 3D image on the work piece (Col. 3, lines 25-40). No imaging composition is taught or suggested as part of the method of Kaufman et al. to determine the distance from the laser source and the contoured surface. Based on the teachings of Kaufman et al., their apparatus and method are sufficient for achieving their purpose without a light sensitive composition. Accordingly, there would have been no desirability of applying the light sensitive compositions of Weed et al. or Kuchta on the contoured surface of Kaufman et al. to measure the distance from the laser to the contoured surface.

Claims 2 and 4 depend from claim 1 and are patentable over the applied documents for the same reasons as claim 1.

Applicants respectfully request withdrawal of the rejection of claims 1, 2 and 4 under 35 U.S.C. §103(a) over U.S. 2002/0064728 to Weed et al. in view of U.S. 5,112,721 to Kuchta and further in view of U.S. 6,547,397 to Kaufman et al. and further in view of Applicants' admission.

Claims 11-14 and 16-18 are rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. 2002/0064728 to Weed et al. in view of U.S. 6,547,397 to Kaufman et al. in view of U.S. 5,563,023 to Kangas et al. and further in view of Applicants' admission.

Claims 11-14 and 16-18 are canceled. Accordingly, this rejection is moot.

Claims 5-8, 10, 19 and 20 are rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. 6,547,397 to Kaufman et al. in view of U.S. 6,618,174 to Parker et al. in view of U.S. 2002/0064728 to Weed et al. in view of U.S. 5,112,721 to Kuchta and further in view of Applicants' admission. Applicants respectfully traverse this rejection.

Claim 8 is canceled. Accordingly, the rejection with respect to claim 8 is moot.

Although Kaufman et al. disclose applying a 3D image on a contoured surface, Kaufman et al. alone or in combination with Parker et al., Weed et al., Kuchta or Applicants' admission do

not suggest the desirability of modifying Kaufman et al. to include a photoimageable composition on the contoured surface of Kaufman et al. or drilling holes in the substrate of Kaufman et al. based on the location of a imaging composition. See *In re Gordan*, 733, F.2d 900, 902, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984) ("The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification."). Kaufman et al. are directed to a method of using a 3D laser to accurately measure the distance between the laser source and a work piece and properly project the 3D image on the work piece (Col. 3, lines 25-40). There would have been no desirability to modify Kaufman et al. by drilling holes in the contoured surface of a substrate. There is no teaching or suggestion that such a modification would aid or improve the distance measuring process of Kaufman et al. Further, no imaging composition is taught or suggested as part of the method of Kaufman et al. for any purpose, let alone to determine the distance from the laser source and the contoured surface. Based on the teachings of Kaufman et al., their apparatus and method are sufficient for achieving their purpose without a light sensitive composition. Moreover, the Office Action's allegation that Figure 1 of Kaufman et al. is the same as Figure 1 of the present application is error. The description of Figure 1 of Kaufman et al. does not teach or even suggest an imaging composition on a substrate (Col. 5, lines 54-63). In contrast, Figure 1 of the present application discloses the presence of an imaging composition of the substrate (specification, page 8, lines 11-16).

Weed et al. are directed to photoimageable and photopolymerizable compositions which have sensitizers in the near IR region (Abstract, page 1, paragraph [0007], page 3, paragraph [0037], page 8, paragraph [0106] and paragraphs [0108] to [0118] and page 9, paragraphs [0119] to [0123]), not the visible region. In contrast, Kuchta disclose sensitizers which are sensitive for the visible region of the spectrum (Col. 1, lines 9-10), not the near IR region of the spectrum. A person of ordinary skill in the art reading the disclosures of Weed et al. and Kuchta would have had no reason or motivation to substitute the cyclopentanones of Kuchta for the IR sensitive compounds of Weed et al.

Further, it is well settled that a proposed modification is inappropriate for an obviousness inquiry when the modification of an applied document renders that document inoperable for its intended purpose. See *In re Fritch*, 972 F.2d at 1265 n. 12, 23 U.S.P.Q.2d at 1783 n. 12.

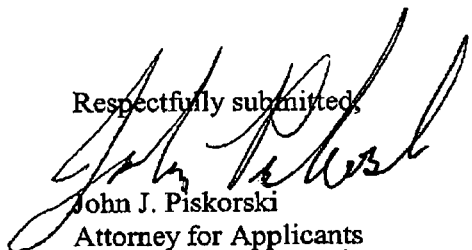
Substituting the visible light sensitive cyclopentanones of Kuchta for the IR sensitizers of Weed et al. would render the compositions of Weed et al. inoperable for its intended purpose. Moreover, the suggested combination of Weed et al. with Kuchta is improper under 35 U.S.C. §103 because it would require a substantial reconstruction and redesign of the elements shown in Weed et al. as well as a change in the basic principles under which Weed et al. was designed. See *In re Ratti*, 270 F.2d 810, 813, 123 U.S.P.Q. 349, 352 (C.C.P.A. 1959). Since Weed et al. are directed to a composition which is sensitive to light in the IR region of the spectrum, not the visible region as the compositions of Kuchta, to substitute the visible light sensitive sensitizers of Kuchta for the IR sensitive compounds of Weed et al. would require a substantial reconstruction and redesign of the elements of Weed et al., thus the combination of Weed et al. with Kuchta is improper under 35 U.S.C. §103.

Applicants respectfully request withdrawal of the rejection of claims 5-7, 10, 19 and 20 under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. 6,547,397 to Kaufman et al. in view of U.S. 6,618,174 to Parker et al. in view of U.S. 5,112,721 to Kuchta and U.S. 2002/0064728 to Weed et al. and further in view of Applicants' admission.

Favorable consideration and allowance of claims 1, 2, 4-7, 10 and 19-20 are earnestly solicited.

Should the Examiner have any questions concerning this response or this application, or should she believe this application is for any reason not yet in condition for allowance, she is respectfully requested to telephone the undersigned at the number set forth below in order to expedite allowance of this application.

Respectfully submitted,



John J. Piskorski

Attorney for Applicants

Registration No. 35,647

Telephone No.: (508) 229-7662

Facsimile No.: (508) 787-4730

Rohm and Haas Electronic Materials, L.L.C.  
455 Forest Street  
Marlborough, MA 01752